

# *Stormwater*

Rain flows across hard surfaces.  
It picks up our pollution.  
The pollution flows to the Sound.



Prepared in fulfillment of NPDES Permit requirements

By  
The City of Mukilteo  
11930 Cyrus Way  
Mukilteo, WA 98275

This page intentionally left blank

# Table of Contents

---

Executive Summary .....	1
Permit Condition S5.C.1 – Stormwater Planning .....	3
Permit Condition S5.C.2 – Public Education and Outreach .....	3
Permit Condition S5.C.3 – Public Involvement and Participation.....	7
Permit Condition S5.C.4 – MS4 Mapping and Documentation .....	7
Permit Condition S5.C.5 – Illicit Discharge Detection and Elimination.....	8
Permit Condition S5.C.6 – Control Runoff from New Development, Redevelopment and Construction Sites .....	8
Permit Condition S5.C.7 – Operations and Maintenance .....	9
Permit Condition S5.C.8 – Source Control for Existing Development .....	10
Permit Condition S7 – Total Maximum Daily Load (TMDL).....	10
Permit Condition S8 – Monitoring and Assessment.....	10
Appendix A – Internal Coordination .....	A-1

## **Executive Summary**

### **The NPDES Program**

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act. In Washington State, authority over the program is given to Washington State Department of Ecology (Ecology). The intent of the NPDES Program is to protect and restore water quality in waters of the State so that they can support beneficial uses, such as fishing and swimming. Some governmental and private entities must obtain an NPDES Permit, and comply with conditions set forth in the Permit, before discharging stormwater or wastewater to waters regulated by Federal and State governments. The City of Mukilteo is such an entity.

### **The Western Washington Phase II Municipal Stormwater Permit**

In 1999, the United States Environmental Protection Agency (EPA) created an NPDES Phase II Permit. This Permit requires operators of small Municipal Separate Storm Sewer Systems (MS4s) to obtain coverage, as defined in U.S. Census Bureau urbanized areas. The City of Mukilteo operates an MS4 under this definition.

The City of Mukilteo has been operating under a Phase II Permit since 2007. On August 1, 2019, Ecology issued a new Phase II Permit. The City is operating under this Permit (Permit) through July 31, 2024. The Permit allows municipalities to discharge stormwater from municipal systems into waters of the state, as long as they implement programs to reduce pollutants in stormwater to the maximum extent practicable (MEP), apply all known and reasonable technologies (AKART) to address stormwater pollutants, and protect receiving waters from degradation.

The full text of the 2019 Permit can be viewed at Department of Ecology's website:  
<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits>

### **Purpose of the Annual Stormwater Management Program Plan**

Condition S5 of the Permit requires that all Permittees have a Stormwater Management Program (SWMP). "A SWMP is a set of actions comprising the components listed in S5 and any additional actions necessary, to meet the requirements of applicable TMDLs" (S5.A. of the Permit). The City's SWMP must be implemented City-wide, must include an ongoing program for gathering, tracking, maintaining, and using information to inform the SWMP. The SWMP also requires internal and external coordination.

The City must prepare a written SWMP Plan that outlines the City's planned activities for the upcoming year for programs in S5.C. of the Permit. The City prepares and posts the draft SWMP Plan and solicits public feedback related to those planned activities. The most current SWMP Plans are posted on the City's website. The City submits an Annual Report on Permit-related requirements to the Washington State Department of Ecology by March 31st of each year as required by the Permit. The Annual Report is available online, or interested parties can request a copy by calling (425) 263-8083.

## **2023 NPDES Permit Coverage and Planned Activities**

This SWMP Plan covers planned activities for the period January 1, 2023, through December 31, 2023, and follows the organization of 2019 Permit Section 5.C as follows:

- S.5.C.1 – Stormwater Planning
- S.5.C.2 – Public Education and Outreach
- S.5.C.3 – Public Involvement and Participation
- S.5.C.4 – MS4 Mapping and Documentation
- S.5.C.5 – Illicit Discharge Detection and Elimination
- S.5.C.6 – Control Runoff from New Development, Redevelopment and Construction Sites
- S.5.C.7 – Operations and Maintenance
- S.5.C.8 – Source Control Program for Existing Development

Information on Section 7, Compliance with Total Maximum Daily Load Requirements, and Section 8, Monitoring, are also included in this document.

This draft SWMP Plan will be available for comment through December 31, 2022. The final document is required by March 31, 2023, and will be available on the City's website at <https://mukilteowa.gov/departments/public-works/surface-water/stewardship/npdes/>.

The City's *Comprehensive Surface Water Management Plan*, last updated in 2015, contains policies and goals for the surface water utility on a broader range of topics. The full plan can be found on the City's website at: <http://mukilteowa.gov/departments/public-works/surface-water/programs-and-planning>. The City is currently working on updates to this plan for more on the updates please visit the City's website.

## **Permit Condition S5.C.1 – Stormwater Planning**

### **Overview**

The goal of the Stormwater Planning effort is to build on past City efforts to protect receiving water quality and beneficial uses under anticipated future developed conditions. The city will continue this effort with a multi-disciplinary team and coordination of many of the City's long-range land use plans used to accommodate growth or transportation.

### **Stormwater Planning 2023 Planned Activities**

The City will continue to work with its interdisciplinary team (convened in 2019) to continue to work on items related to Stormwater Planning. Specific activities include:

1. Responding to the series of Stormwater Planning Annual Report questions, on or before March 31, 2023.
2. Assessing, identifying, and addressing any barriers to implementation of LID Principles or LID BMPs.
3. Implement the new Stormwater Management Action Plan. Key work product will include completion of the *Receiving Water Assessment* and the *Receiving Water Prioritization*. It is also anticipated that we will start work on the Chennault Beach Gulch watershed that was identified as the high priority catchment in the *Stormwater Management Action Plan* in 2023.

## **Permit Condition S5.C.2 – Public Education and Outreach**

### **Overview**

There are two goals of the education and outreach program. The first is to build general awareness related to the impacts from polluted stormwater. The second is to affect individual behavior change related to specific practices that contribute pollution to our streams and the Puget Sound.

### **Education and Outreach 2023 Planned Activities**

The City of Mukilteo's education and outreach program has several elements to help residents and business owners understand stormwater pollution as a significant water quality concern.

### **Regional Collaboration**

The City is involved in education programs locally and regionally. The City tailors existing programs to fit our residents' and stormwater needs. Examples of continuing partnerships include: Snohomish County Health District, Snohomish County Surface Water Management, Snohomish Conservation District, and neighboring municipalities through the Stormwater Outreach for Municipalities (STORM) group.

The City's Dumpster Outreach Behavior Change Program, Youth Stormwater and Water Quality Awareness classes are specific programs that are the direct result of regional collaboration (see below for program details).

#### *Stormwater Outreach for Municipalities (STORM) Long-Term Funding Committee*

STORM is a regional work group comprised of municipal Permittees from jurisdictions of all sizes. The STORM work group is led by a steering committee and has several work groups for separate stormwater related outreach topics. STORM meets quarterly, where information is shared across jurisdictions. Mukilteo leverages the expertise that STORM provides through use of educational materials and partnership opportunities in regional campaigns, and contributes content, when available.

Mukilteo is a member of the Long-Term Funding Committee (LTF Committee), one subcommittee of STORM. Over many years, a STORM Coordinator position has been temporarily funded with grant monies or other non-stable funding sources. The STORM Coordinator oversees meeting agendas, trainings, and spearheads regional outreach campaigns.

City staff will continue to assist the Long-Term Funding Committee to secure stable funding for a Coordinator position in 2023. The City does not have the capacity to replace the value of the STORM Coordinator, so support of a long-term funding mechanism is a benefit to the City's stormwater utility.

#### **General Awareness**

The Permit provides lists of target audiences and subject areas from which Permittees can choose for their General Awareness programs. The components of the City's General Awareness program are below, with the target audiences and subject areas from the lists:

##### *Stormwater Informational Banners*

Target Audience: General Public

Subject Area: General impacts of stormwater on surface waters, including impacts from impervious surfaces.

In 2023, the City will continue to employ banners at various locations across the City with key best practice messaging, including car wash practices, pet waste disposal practices, stewardship opportunities, and clearing leaf and debris from storm drains.

##### *Stormwater Messaging on City Vehicles*

Target Audience: General Public

In 2023, the City will work to design and install stormwater messaging on large Public Works vehicles, such as the Spill Trailer, Street Sweeper and Vector Truck.

##### *Youth Stormwater and Water Quality Awareness*

Target Audience: Elementary School-Aged Children

Subject Area: General impacts of polluted rainwater on surface waters, including impacts from impervious surfaces.

The City will continue its partnership with the Snohomish Conservation District (SCD), through the SCDs Sound Education programs, to provide education at the elementary school level. Topics include lessons titled “Four Drops of Rain”, “It’s not Fido’s Fault!”, “Macro Mayhem”, “Salmon of Puget Sound”, “Water Quality Monitoring with Test Kits”, and “Water Quality Monitoring with Live Benthic Macros”. These classes may be held in an in person, or online format.

#### *Pet Waste Station Messaging*

Target Audience: General Public

Subject Area: General impacts of polluted rainwater on surface waters, including impacts from impervious surfaces.

#### *Snohomish – Island Library*

Target Audience: General Public

Subject Area: General impacts of polluted rainwater on surface waters, including impacts from impervious surfaces. City will work with the library to have education material in the children area all year long and one display per year in the public area.

The Stormwater Utility will continue to provide mutt mitts (dog waste bags) with stormwater messaging at City parks and other City-managed pet waste stations.

### **Behavior Change**

#### *Dumpster Outreach*

The City will continue to implement the strategy based on the pilot program in 2021, with the goal to reach the target audience for better dumpster management. Dumpster outreach materials and BMPs will be shared with business owners and operators through the source control program.

### **Stewardship**

#### *Drain Marking Program*

The City will continue to offer its Drain Marking program as a stewardship opportunity for interested groups. The City has kits available that include all of the necessary tools and equipment to apply drain markers within the City.

#### *Private Stormwater System and BMP Maintenance*

Most of the private stormwater facilities within the City do not fall under the Permit’s requirements for the City to inspect for maintenance, due to the age of the infrastructure. As opportunity arises, City staff work with private property homeowners and Homeowner’s Associations to educate them on private stormwater BMPs, their maintenance requirements, and the importance of these facilities on the landscape.



*Adopt A Drain Program*

The City will begin participation in the Adopt A Drain program in 2023. The program allows citizens adopt catch basins within the City for regular clearing of leaves, trash and debris from the drain surface. The program provides necessary instructions to conduct this work in a safe manner. Adopters can track their collective progress online.

## **Permit Condition S5.C.3 – Public Involvement and Participation**

### **Overview**

The City's goal for public involvement and participation is to actively engage its residents, business owners, property owners, and contractors in preservation and protection of clean water. The City achieves this through advisory councils, public hearings, watershed committees, volunteer opportunities, and other avenues for participation as activities arise.

### **Public Involvement and Participation 2023 Planned Activities**

#### SWMP Plan Update

Public involvement is sought during development of the SWMP Plan. Residents are encouraged to review and comment on the SWMP Plan by visiting the City of Mukilteo's website at <http://mukilteo.gov/departments/public-works/surface-water/stewardship/npdes/>. The final 2023 SWMP Plan and the 2022 Annual Report will be posted on the City's website no later than April 30, 2023.

#### Annual Utility Update to Council

City staff plans to provide a stormwater utility update to City Council in the first quarter of 2023. The update includes reports on Permit compliance, as well as other goals and performance measures for the Utility. This update is advertised on the [Council Agenda](#).

#### 2024 Surface Water Comprehensive Plan

The City will host the 2<sup>nd</sup> public open house meeting at the end of the first quarter of 2023. At this meeting the team will report back to the residents on the findings from the public outreach and survey work that were conducted in 2022. The team will also lay out a road map for the Comprehensive Plan Updates to be completed in 2023 for approval in 2024 by Council.

#### Source Control Program Development (Permit Conditions S5.C.8)

The City will start implementing the newly developed Source Control Program in 2023. Staff will send out post cards to twenty percent of the qualifying businesses on two separate occasions. The first will be to notify businesses of the upcoming program. The second will be to provide an opportunity for their input. Staff will continue to present the program requirements to several city work groups.

## **Permit Condition S5.C.4 – MS4 Mapping and Documentation**

### **Overview**

The goal of the mapping program is to provide continuous improvements and updates to the City's map of the stormwater network. Accurate mapping helps the utility understand flows in the system, trace illicit connections and spills, and identify discharge locations to natural water bodies.

## **Mapping and Documentation 2022 Planned Activities**

### Maintain maps of the City's stormwater drainage system (MS4)

- Continue collecting pipe material and pipe size information for all known outfalls.
- Maintain and update the City's MS4 maps, including points of significance, such as outfalls, waters of the state, stormwater facilities, and all known connections.
- Continue efforts for complete mapping of all known connections from the MS4 to a privately owned stormwater system (scheduled to be complete August 1, 2023).
- Maintain the [City's Stormwater Network Viewer](#), available online.

## **Permit Condition S5.C.5 – Illicit Discharge Detection and Elimination**

### **Overview**

The goal of the illicit discharge detection and elimination (IDDE) program is to prevent, detect, characterize trace and eliminate illicit discharges and connections found in the MS4. This goal is achieved through inspection, education, regulation, and enforcement.

### **Illicit Discharge Detection and Elimination 2023 Planned Activities**

The City will continue to implement its ongoing program to detect and identify non-stormwater discharges and will begin to implement and follow the *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual* (Herrera, May 2020 Revision).

Other program elements include:

- Maintain City's Spill Hotline: (425) 263-8088
- Report applicable discharges to the Department of Ecology
- Continue to implement the City's internal training program
- Continue to screen the City's MS4 as part of the annual catch basin and facility inspections
- Follow up on any potential illicit connections discovered as part of the city's CCTV pipe inspection program

## **Permit Condition S5.C.6 – Control Runoff from New Development, Redevelopment and Construction Sites**

### **Overview**

Permit Section 5.C.6 requires that Mukilteo develop, implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. Controlling runoff from developed properties reduces peak flow flooding, pollutant loading, and other negative freshwater impacts.

## **Control Runoff from New Development 2022 Planned Activities**

- Continue to apply Mukilteo Municipal Code (MMC) Section 13.12.160 to address runoff from new development, redevelopment, and construction site projects. The City requires development projects to meet the Minimum Requirements, thresholds, and definitions of the Appendix 1 of the Permit. This is administered through the 2019 *Stormwater Management Manual for Western Washington* (Ecology Manual) and the City of Mukilteo's 2019 *Amendment of the 2017 Development Standards* (DS) for all permitted new development and redevelopment projects.
- Adoption of the 2019 *Stormwater Management Manual for Western Washington* in early 2022. Adoption of the 2019 Ecology Manual is also required as part of the Source Control ordinance (see below). The city will subsequently revise the Mukilteo Development Standards to reflect reference changes to the 2019 Ecology Manual.
- Continue to implement a permitting process that requires site plan review, inspections and enforcement mechanisms for noncompliance.
- Update training for staff involved in controlling stormwater runoff in development.
- The City will continue to apply Ecology's maintenance standards in Chapter 4 of Volume V of the Ecology Manual.

## **Permit Condition S5.C.7 – Operations and Maintenance**

### **Overview**

The City's goal is to implement and document a program that ensures maintenance activities to prevent or reduce pollutant runoff to the maximum extent practicable, including stormwater facility maintenance and other non-stormwater related maintenance activities.

### **Municipal Operations and Maintenance 2023 Planned Activities**

- The City will follow the maintenance standards of Chapter 4.6 of Volume V of the Ecology Manual, and the *Green Stormwater Operations and Maintenance Manual* (Seattle Public Utilities, 2009) using the timeframes for maintenance found in the Permit.

#### Maintenance of Stormwater Facilities:

- The city has adopted the maintenance standards of the Ecology Manual.
- Continue annual facility and BMP inspections for private stormwater treatment and flow control BMPs/facilities permitted after July 29, 2009 (the date the City began permitting projects in accordance with the 2007 Permit).
- Inspect all municipally owned or operated stormwater facilities. The City has approximately 227 stormwater treatment and flow-control facilities. The City Public Works operations staff will inspect each of these in 2023 to identify maintenance needs.
- Public Works operations staff routinely perform spot checks of potentially damaged permanent treatment and flow-control facilities, other than catch basins, after major storm events.

- Public Works operations staff will inspect 50% of the City's owned or operated catch basins and address any maintenance deficiencies.
- Staff will continue to follow their practices, policies and procedures to reduce stormwater impacts associated with runoff from all municipal lands and associated with municipal operations. Documentation of these practices will be complete by the June 30, 2023 deadline.
- The City Public Works facility will continue to operate according to the Surface Water Pollution Prevention Plan (SWPPP). Operations staff inspect the facility quarterly, in accordance with the SWPPP.

## **Permit Condition S5.C.8 – Source Control for Existing Development**

### **Overview**

Source Control for Existing Development is a new Permit requirement. The goal of the source control program for existing development is to provide technical assistance to business that have the potential to pollute. This assistance will be aimed at implementing operational BMPs or treatment facilities, where warranted.

### **Source Control for Existing Development 2022 Planned Activities**

Staff will provide technical assistance, to at least twenty percent of commercial properties, by conducting routine, follow up, and complaint-based inspections. This technical assistance will consist of implementing BMPs to prevent potential pollution from entering the MS4. Field inspections will also include continuing education related to dumpster outreach, as well as sharing commercial spill kits and information with inspected businesses. Throughout the year field staff will update the commercial business inventory based on changing business operations throughout the City.

## **Permit Condition S7 – Total Maximum Daily Load (TMDL)**

The City of Mukilteo has no load allocation under any TMDL. Therefore, no activities are planned under this element.

## **Permit Condition S8 – Monitoring and Assessment**

### **Overview**

The goals of monitoring and assessment under the Permit are to: 1) study small streams and marine nearshore areas to track long term trends in water quality and 2) study the effectiveness of the elements required under the SWMP.

Section 8 of the Permit covers Status and Trends Monitoring, Effectiveness Studies, and Source Identification and Diagnostic Monitoring (SIDM). At the beginning of the Permit cycle, the City was given the option to either 1) conduct its own qualifying Status and Trends Monitoring and/or Effectiveness Studies, or 2) opt into a regional collective fund. This fund is used to complete studies of regional significance. In the case of the SIDM, the City is required to pay into a collective fund. The city chose to opt into the regional collective fund.

The Stormwater Work Group (SWG), a subgroup of the Puget Sound Ecosystem Monitoring Program identifies objectives for stormwater monitoring. Working with regional input from several municipalities and the general public, the SWG develops an approach to provide information about stormwater impacts and the effectiveness of stormwater management actions. The SWG makes recommendations to Ecology for directed studies and shares the results with Permittees. For more information, see the SWG webpage at: <https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring>

### **Opt-In Decisions**

The City of Mukilteo will make annual payments into the collective fund for both Regional Status and Trends Monitoring and SWMP Effectiveness and SIDM Studies. No additional stormwater monitoring is expected in 2023.

## **Appendix A – Internal Coordination**

